

## SEVERE STORMS FOR MAY 1949

The table hereunder contains such data as have been received concerning severe local storms that occurred during the month. A revised list will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Eagle Gap, Ark.	Apr. 30-May 1	Night				Wind and hail	Extensive damage to roads, timber, farm houses and outbuildings.
Vandervoort and Cove, Ark.	Apr. 30-May 1	do				Wind	Several barns, outbuildings and 2 houses destroyed.
Russellville, Ark.	Apr. 30-May 1	do				do	Destroyed 1 house.
Ratcliff, Ark.	May 1	Morning				do	Trees and 3 houses damaged.
Dickson, Tenn.	1	11:45 a. m.	400	0		Tornadoic winds and rain.	Approximately 50 houses and 1 factory building damaged, and many early gardens ruined. Windows broken, roofs damaged, trees twisted and broken, and electric service disrupted. Storm lasted 5 minutes.
Pulaski, Tenn.	1	Noon	50	0	\$75,000	Tornado and rain	Seed processing plant suffered severe damage; 2 buildings unroofed, equipment of processing plant severely damaged, grain elevators completely destroyed, and stock of processed seed damaged. Path of storm approximately 300 yards in north-eastward direction.
Mt. Pleasant, Tenn.	1	do	500	0		do	Storm lasted about 10 minutes. Winds estimated up to 75 m. p. h. Every power line in town was out for a short period of time. Falling limbs and trees damaged about 15 homes and buildings. Length of path about 12 miles in northward direction.
Mishawaka, Ind.	1	4:10 p. m.	100		75,000	Wind	Severe line squall.
Chickasaw County, Miss.	1	Late afternoon		0	25,000	Tornado	Passed over sparsely settled areas north of Houston to near Okolona; damaged several homes, numerous trees. No personal injuries.
Water Valley, Miss.	1	do		0	100,000	do	Details lacking, but apparently no serious injuries.
Jacksonville, Fla.	2	2:30-3 p. m.			2,000	Electrical, wind and hail.	Gusty winds broke plate glass store window. Garage partially unroofed. Lightning struck garage causing damage to structure and contents estimated at \$700. Electric distribution equipment damaged by lightning at several points. Light hail fell in several sections.
Chaves County (southern portion), N. Mex.	3	3-5 p. m.			3,500	Hail	Some damage to cotton and alfalfa.
Brainerd and vicinity, Minn.	3	4-6 p. m.	16	0	32,000	Thundersqualls (possibly small tornado).	Many buildings either moved from foundations, unroofed, or otherwise damaged; awnings, signs and billboards blown away; 2 steel light towers at baseball park wrecked; fences, score board, and press box demolished and grandstand damaged; poles and wires down; several airplanes at airport blown off field and 1 damaged extensively; trees uprooted.
Brainerd and vicinity, Minn.	3	4-6 p. m.			5,000	Hail	Heavy hail, accompanying severe thunderstorm, resulted in many broken windows; greenhouses, roofs, neon signs, and automobile tops damaged. Some damage to growing crops.
Greeley, Wichita, and Scott Counties, Kans.	3	Late afternoon				do	Hail fell along several paths over northern portion of these counties, at intervals in general storm. Some hailstones as large as hens' eggs and driven several inches into ground. Wheat losses ranged from 10 percent to total. Little property damage.
Northern Roosevelt and southern Curry Counties, N. Mex.	3	Late afternoon and evening				Rain and hail	Considerable damage to young crops from washing, and to winter grains by hail
Moose Lake and vicinity, Minn.	3				500	Electrical	3 homes damaged by lightning.
Vicinity of Lake Superior in northwestern Wisconsin.	3-5			1	100,000	Thunderstorms	High winds blew down trees, disrupting power and communication service; demolished about 20 farm buildings. Accompanying heavy rains caused minor floods, washing out 3 small bridges and damaging highways. Man drowned in harbor at Superior when small boat capsized.
Flamingo, Fla.	4	Afternoon		1		Electrical	65 miles southwest of Miami lightning struck tent in which 4 persons were seeking shelter, killing 1 instantly and injuring the others.
Chaves County (southern portion), N. Mex.	4	4 p. m.			5,000	Hail	Cotton destroyed.
Portales and vicinity, N. Mex.	4	5:30 p. m.			125,000	Hail and wind	Crops destroyed, and about \$75,000 damage to buildings and other property.
Underwood and vicinity, Minn.	4	5:30-6 p. m.			5,000	Hail	Heavy hail, accompanying severe thunderstorm, caused considerable damage to real property and some damage to growing crops. Some young pigs and poultry killed.
Richwood Township, Becker County, Minn.	4				2,500	Thundersqualls	Barn blown down, and some minor damage to buildings on several farms.
Thomas, Rawlins, and Decatur Counties, Kans.	5	5 p. m.	15		150,000	Hail	Storm originated in northwestern Thomas and southwestern Rawlins Counties, progressed northeastward across Rawlins County and into Decatur County. Total path of destruction, about 60 miles. Stones as large as goose eggs and golf balls fell in some areas. Storm appeared to separate into 3 paths over northern Decatur County. Some wheat fields a total loss.
Ettrick and Trempealeau, Wis.	5	7:30 p. m.			10,000	Thunderstorm	Trees blown down and several farm buildings demolished. 1 person injured.
Fillmore County, Nebr.	5	8:30-9 p. m.	1 to 2		35,050	Hail	Damage to crops \$35,000; other property \$50. Damaged wheat and alfalfa. Storm described as splitting, 1 part moving northeastward from Geneva and the other southeastward. Path 6 to 10 miles long.
Sedan and vicinity, Nuckolls County, Nebr.	5	P. m.	13		2,000	do	Alfalfa, oats, and wheat damaged. Path 4 to 5 miles long.
Dalhart, Tex.	5		200	0		Tornado	Chicken house demolished; about 100 chickens killed.
Rawlins to Rock Springs, Wyo.	5					Snow	Highway 30 blocked. Many travelers stranded.
Chaves County (southern portion), N. Mex.	6	2 p. m.			10,000	Hail	Cotton damaged.
Havana, Gadsden County, Fla.	6	Afternoon			150,000	do	Hail virtually destroyed 250 acres of shade tobacco.
Bledsoe, Tex.	6	5 p. m.	1,320	0		Tornado and hail	2 houses and 1 car demolished.
Sundown, Hockley County, Tex.	6	5:45 p. m.	147	2	350,000	do	About 20 homes and other buildings destroyed and unroofed. 10 cars and trucks demolished. 2 cows received broken legs. Enormous amount of glass damage. 3 persons injured.
Charles Town and vicinity, W. Va.	7	2:30 p. m.	12			Hail and rain	Hailstones 1/4 inch in diameter severely damaged all crops and shattered many glass windows.
Mulberry, Ark.	7	Afternoon				Hail and wind	Damaged gardens and field crops.
Timberville, Va.	7	Late afternoon			150,000	Electrical	Large feed supply store burned.
Portsmouth, Va.	7	6:25 p. m.				Wind	Revival tent blown down; 6 persons injured, 1 seriously.
Baltimore County, Md.	7	P. m.				Hail and wind	Damage to strawberries and wheat; 2 trees uprooted.
Washington County, Md.	7	P. m.				Hail	Damage to tender garden crops.
Talbot County, Md.	7	P. m.				Wind and thunderstorm.	Trees blown down.

See footnote at end of table.

## SEVERE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Shirley, Ark.	7	Night.				Hail.	Considerable damage to gardens.
Milton, Fla.	8	2 p. m.				do.	Moderate to heavy hail damaged growing crops to some extent.
Jacksonville, Fla.	8	3:45 p. m.			1,000	Electrical and wind.	Thunderstorm to west of city with winds estimated to have reached 70 m. p. h. at Herlong Field where 4 airplanes and an automobile damaged; the damage to car due to wind blowing 34-ton truck against it. Lightning struck a parked car on which 4 people were standing at Jacksonville Speedway, but caused no damage and only minor injuries.
Cape Sable, Fla.	8	Afternoon.		1		Electrical.	Woman sitting in tent killed by lightning.
Grandfield (near), Tillman County, Okla.	8	5-6 p. m.	880-3,520		500,000	Hail.	One area southwest and another east of Grandfield. Damage to wheat and some alfalfa.
Kansas City (southeastern edge of), Mo.	8	5:30 p. m.	50-100	0	1,500	Tornado.	Slight damage to house and barn, and some trees blown down. On another farm, barn moved about 75 feet and set down in bad condition. Several trees blown down nearby and other minor damage. Except for some other trees blown down and limbs twisted, no further evidences of tornado.
Schulter, Pittsburg County, Okla.	8	6:30-6:35 p. m.	880	0	30,000	Tornado and hail.	Path 5 miles long. No injuries. Storm from southwest turned and left town in southeastward direction. Hail damage \$20,000 to crops; tornado damage to buildings, \$10,000.
Newport, Ark.	8	Night.				Hail.	Considerable damage to spinach crop in southern Jackson County.
Coalton-Nokomis area, Ill.	9	12:30 p. m.			2,000	do.	Hailstones up to 1 inch in diameter damaged a number of gardens and some wheatfields.
Cape Girardeau County, Mo.	9	2 p. m.	1			Thunderstorm and hail.	Hail did considerable damage to gardens and fruits near Gordonville and Pocahontas. Some damage to hay-crops and windows. Some replanting of crops and gardens necessitated.
St. Louis County (extreme northeastern portion), Mo.	9	2:30 p. m.		0		Tornado.	Trees uprooted and section of barn blown into Missouri River by a small tornado which struck Columbia bottoms area near confluence of Missouri and Mississippi Rivers.
Columbia, S. C.	9	2:47-10 p. m.		1	3,000	Electrical.	Woman killed by lightning and her house burned. Other minor damage caused by wind squalls.
Jonesboro, Ill.	9	3:30 p. m.	1		15,000	Hail.	Considerable damage to tree fruits and other crops.
Albermarle County, Va.	9	4:30-6 p. m.			300,000	Hail and wind.	Several buildings unroofed, poultry killed, crops cut to pieces over 12 square miles or more. Estimated 200,000 bushels of fruit destroyed. Considerable damage to crops over small area.
Greene County, Ind.	9	5 p. m.	3		26,000	do.	Stones up to 1 inch diameter. Heavy hail caused some roofs to cave in. \$25,000 crop damage included in total.
Nashville, Tenn.	9	6:20 p. m.				Electrical and hail.	Electric and telephone services disrupted over wide area. Several fires and traffic accidents. East Nashville and north Davidson County felt the whiplash of hail in early afternoon. Violent lightning bolts caused nearly all damage and interruption to utilities. Belle Meade hard hit and numerous trees toppled in the area.
Lawrence County, Ind.	9	7 p. m.	5		22,000	Wind and hail.	Stones up to 3/4 inch diameter. \$18,000 crop damage included in total.
Elephant Butte and vicinity, N. Mex.	10	1 p. m.			5,000	Hail and wind.	Some fruit damaged; principal damage to buildings and cars.
Albany, Ga.	10	2:30 p. m.			2,000	Wind.	Winds, reaching force of 60 m. p. h., caused widespread damages; plate glass windows and window panes broken; many trees blown down or delimbed, blocking streets and causing damages to other property; power and telephone lines blown or torn down, disrupting services 3 to 4 hours; house roofs damaged to some extent; a large sign board torn from its moorings; and skating rink blown over, injuring 1 person. No damage to crops other than some corn blown down.
Everglades National Park, Fla.	10	2:45 p. m.		0		Tornado cloud.	Cloud 5 miles northwest of Royal Palm Ranger Station; did not reach ground.
Catawba, Cabarrus, Cleveland, Iredell, Burke, Rowan, and Rutherford Counties, N. C.	10	Late afternoon.				Hail and wind.	Hailstones reported at some places size of hens' eggs. Heavy damage to crops and some damage to buildings.
Polkton, Anson County, N. C.	10	do.		2		Electrical.	Children were apparently touching metal clothes line attached to tree that was struck. No property damage reported.
Wauchula, Fla.	10			1		do.	Man killed by lightning.
Carpenter, Wyo.	10					Hail.	Slight damage to alfalfa.
Fruitland and vicinity, N. Mex.	11	2:10 p. m.			500	do.	Gardens and fruit damaged.
Carpenter, Wyo.	11					do.	Slight damage to growing crops.
Fort Lupton, Colo.	12	3:45 p. m.		1		Rain and electrical.	Woman struck by lightning while standing under large tree. 2 others injured, but not seriously.
Roseau and vicinity, Minn.	12	9:15-10 p. m.				Thundersqualls.	Slight damage to farm buildings, machinery and power lines. Storm moved southeastward. Moderately heavy rains, lightning, and hail caused slight damage.
Sherman County, Kans.	13	3:45-6 p. m.	3-4			Hail and tornado.	Hail fell over strip 15 miles long. Some wheat suffered 100 percent loss. 4 distinct tornado funnels observed. 2 reached ground. Tornadoes originated 7 miles north and 4 miles east of Goodland and disappeared 7 miles north of city, moving almost due west. Fences destroyed.
Potter and Carson Counties, Tex.	13	4:55 p. m.	17	0	16,500	Tornado, with hail.	Formed 10 miles northeast of English Field and moved northeastward to town of Panhandle. Heavy hail, average size 4 inches in diameter; 1 stone measured 8 1/2 x 5 1/2 inches and weighed 4 1/2 pounds, 45 minutes after storm. Part of path above ground; most of path in open country. Believed to be same storm that hit Panhandle, Tex.
Panhandle, Carson County, Tex.	13	5 p. m.	17	0	41,100	do.	Heavy hail damage to wheat, estimated at \$40,000. As tornado reached edge of town, it veered to left and then lifted, after damaging only 1 home.
Wisconsin Rapids and vicinity, Wis.	13	Afternoon.			20,000	Thunderstorm.	2 dairy barns demolished, and several smaller farm buildings damaged.
Hagerman and vicinity, N. Mex.	13	P. m.				Hail.	Difficult to assay damage of any one storm in this area, as there had been several during the latter part of April and early May. Cumulative damage to crops over this period estimated around \$200,000. Many windows broken and roofs damaged.
Ringgold, Tex.	14	5:30 p. m.	8		400,000	Wind and hail.	Estimated \$300,000 hail damage to wheat, oats, corn, and cotton. Many farm and town residences need reroofing.
Ellis County, Kans.	14	7 p. m.	440		50,000	Hail.	Storm moved northeastward along a path 4 miles long. Stones mostly small.
Weld County, Colo.	14-18				1,500,000	Rain, hail, and wind.	Storm general over county, severe in southern portion. Caused damage to crops, livestock, farm lands, and roads. Land inundated; bridges and grades washed out.
Stuart, Va.	15	11:10 a. m.-12 noon.				Hail.	Considerable damage to crops over small area.
Pueblo, Colo.	15	11:25 a. m.-5:35 p. m.			500	Hail, rain, and lightning.	Damage mostly to truck crops.
Keenesburg (near), Colo.	15	2-4 p. m.	300		10,000	Wind, hail, and rain.	Principal damage to crops and building roofs.
Briggsdale (near), Colo.	15	3:30-6 p. m.	10		2,000	Rain and hail.	Damage to crops, livestock, and power lines.

See footnote at end of table.

## SEVERE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Dumas, Tex.	15	4:30 p. m.		0	500,750	Tornado and hail	Tornado damage light; confined to trees, 2 barns, and some residences. Hail damage to wheat estimated at \$500,000.
Medicine Bow, Wyo.	15	Afternoon				Electrical	Slight damage when lightning hit building.
Gruver, Tex.	15	6 p. m.		0		Tornado and hail	Several thousand acres of wheat severely damaged by hail. One house unroofed; several windmills blown away; metal granary moved ¼ mile; trees uprooted.
Amarillo, Tex.	15	6:30 p. m.	147	6	5,310,000	do	Total destruction over 1 block by 3 blocks; all persons killed, lived in same block; 83 injured. 15 known farm homes and buildings, airport and 45 planes damaged; 28 boxcars blown off track; heavy damage over 1¼ mile area and light damage over considerable area. Building and a roof damaged at Fair Grounds, 2½ miles from heaviest damage. Warehouse and 35 combines just west of English Field damaged; power and telephone lines along 3 railroads damaged, 1 CAA tower completely lost. Totally destroyed 35 automobiles. Tornado damage estimated at \$4,779,000; wind damage, \$318,000; hail damage, \$212,400.
Woodward (near), Okla.	15	9:30-9:35 p. m.	67	0	1,100	Tornado	Farmstead 3 miles southwest of Woodward damaged. Northward path 3 to 4 miles long. Fire siren sounded and most persons went to storm cellars.
Sedgwick County, Kans.	15	Evening				Hail and wind	Considerable wheat and alfalfa damaged by hail, ranging in sizes from peas to golf balls.
Pawnee County, Kans.	15	11:30 p. m.		0		Tornado	Miniature twister apparently struck only 1 farmstead, 1 mile east of Larned, doing minor damage.
Denver (20 miles southeast), Colo.	16	3:30 p. m.		0		do	Observed from Denver, in isolated section; little damage resulted.
Power County, Idaho	16	3:40-4:20 p. m.	13			Rain	1.40 inches rain recorded at American Falls in 40 minutes. Some topsoil washed on steep hillsides, with small loss in winter wheat on 2 or 3 farms in vicinity of Neeley.
Appling County, Ga.	16	Afternoon			15,000	Wind and hail	3 sections of county affected, heaviest damage south-central near Surrency, where home heavily damaged by high winds; many power and telephone lines down and other miscellaneous property damage. Hail, varying in size from small marbles to hens' eggs, caused heavy losses to crops, chiefly corn and tobacco, in the Surrency area; also, in areas near the Altamaha River and near Bacon County line. Losses probably amounted to \$5,000 to property and \$10,000 to crops.
Stuart, Guthrie County, Iowa.	16	Late afternoon		0		Tornado	Swept through 4-block area in northern part of Stuart, wrecking a church, damaging 1 home and 5 barns. Dozens of trees leveled. Estimated 3 inches of rain accompanied storm. No personal injuries reported.
Wichita County, Kans.	16	10 p. m.	440		25,000	Hail	Northeast of Leoti over path 2 miles long. Many stones 2 inches in diameter.
Texas County, Okla.	16	11:30 p. m.	50-75	1	13,000	Tornado, hail, and rain	1 farm home demolished. Storm apparently originated southwest of Stratford, Tex.; moved to about 3 miles northwest of Goodwell.
Sun River, Mont.	16-17					Wind	Electric power lines damaged by falling trees.
Willard, Box Elder County, Utah.	17	4-8 a. m.	8,000			Flash flood	Following local heavy rains, a deluge of water poured out of several canyons over adjacent farm lands and orchards, cutting gullies. Silt and rock deposited on highway, stopping traffic for about 5 hours. Estimates of damage range from several thousand to \$100,000, mostly to orchards and farm lands.
Harmon and Greer Counties, Okla.	17	12:05-2 p. m.			110,000	Hail and wind	Damage to wheat nearly ripe in area 5 x 10 miles in east-central Harmon County. About 15 farms affected in Greer County, south of Mangum.
Meade, Gray, Ford, and Jetmore Counties, Kans.	17	1-4 p. m.	15	1	902,000	do	Path began about 7 miles north of Plains with high wind. Hail and wind caused much wheat loss in southern Meade County and in Gray County near Ensign. Continued northeastward into western Ford County, ending in southern Hodgeman County. 1 death result of shed being blown over. Path 60 miles long. Stones size of golf balls. Storm occurred from 4 miles north and 1 mile east of Norton to near Nebraska line. Principal loss to crops.
Norton County, Kans.	17	1:30 p. m.			15,000	Hail	Path northeastward for about 8 miles, touching ground at 6 places. Buildings damaged on several farms, and a path cut through a woodlot. No personal injuries.
Amery (near), Wis.	17	2:30 p. m.	50	0		Tornado	Damage to alfalfa and wheat. Path 20 miles long.
Lexington (south of), Dawson County, Nebr.	17	2:30-4 p. m.	12-4		9,950	Hail	Wind caused most of damage to farm buildings.
Naponee (near), Franklin County, Nebr.	17	3:45-4 p. m.			500	Hail and wind	Poultry blown away, buildings in path demolished or weakened, windmills and fences blown over. Damage to buildings, etc. \$100,000; to poultry \$2,500; crops in storage \$3,000; slight damage to crops in fields from rain and light hail. 5 injured.
Leicester Township, Clay County, Nebr.	17	5 p. m.	400-800	0	105,500	Tornado	Killed chickens, smashed autos, tore down barns and other buildings. No stock or crop loss.
Butte (southeast and east of), Boyd County, Nebr.	17	5:30-5:45 p. m.	170	0	10,200	do	12 farm homes wrecked; damage to several wheat fields. 8 persons injured.
Spur, Tex.	17	5:45 p. m.		1	75,000	do	No injuries. Path 6-7 miles long. Tornado traveled from a point 4-5 miles southeast of Binger northward to point 4/5 mile northeast of Binger where 9 homes and 1 church blown away. From there it moved northwestward 2-3 miles, then in northerly direction.
Caddo County, northern part, Okla.	17	6:20 p. m.	300	0	37,000	do	Damaged alfalfa and wheat; windows broken. Path 2 miles long.
Superior (west of), Nuckolls County, Nebr.	17	7-7:30 p. m.	880		7,000	Hail	Automobile tops damaged slightly, shingles broken, wood truss building roofs with corrugated asbestos roofing extensively damaged. Path 3¼ miles long in northeastward direction.
Hastings (near), Adams County, Nebr.	17	7:45-8 p. m.	11½	0	250,000	Wind and hail (tornadoic characteristics)	13 injured, mostly school students. School bus with children in it overturned. Probably 2 or 3 tornadoes close together, all moving northeastward. Several buildings, including schools and churches in eastern part of Meeker damaged or destroyed. Several farm homes damaged.
Lincoln County, Okla.	17	7:59 p. m.	200	0	110,000	Tornado	Small outbuildings destroyed, also 1 barn; 1 cow killed. All damage from tornado. Hail moderate, size of marbles to hens' eggs. Funnel cloud observed.
Haskell, Tex.	17		25	0	2,000	Tornado and hail	Small tornado near Chetopa. High winds over southern Labette and Cherokee Counties. Plate glass broken, small buildings blown over, trees uprooted, and wheat blown down. A few larger buildings unroofed. Power lines broken and telephone service interrupted.
Labette and Cherokee Counties, Kans.	18	12:30-1:10 a. m.		0		Tornado and wind	Difficult to estimate hail damage to wheat due to previous storm and light nature of this one. Three funnel-shaped clouds were observed, but none touched ground.
Dumas, Moore County, Tex.	18	12:30 p. m.	122		50,000	Hail	Three tornado funnels sighted, but none reached ground.
Cheyenne, Wyo.	18	1:35 p. m.				Tornado	

See footnote at end of table.

## SEVERE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Sherman, Cheyenne, Rawlins, Thomas, Sheridan, Decatur, and Norton Counties, Kans.	18	3:30 p. m. to midnight.	18	-----	2,375,900	Wind and hail	A number of short paths occurred in connection with main storm, which began with high wind near Goodland. Hail damage extended from northern Sherman and southern Cheyenne Counties eastward along Rawlins and Thomas County line and into northern Sheridan County, thence across Sheridan into northern Norton County. Some buildings damaged and much wheat total loss. Roof and glass damage reported, and some loss of poultry and young livestock. Some stones as large as baseballs. Most damage in Columbus and area south a few miles. Some loss of crops. Hail size of golf balls damaged flat roofs especially. Path about 15 miles long; storm likely extended into Jackson and Greer Counties. Hail damage to wheat estimated at \$350,000, to alfalfa, \$30,000. 10,000 acres of wheat total loss, 15,000 acres partial loss. 9 buildings damaged or destroyed by straight wind, with \$25,000 damage.
Cherokee County, Kans.	18	Afternoon	-----	-----	-----	do	Tornado did not come to earth.
Gould and vicinity, Okla.	18	6:30-7:30 p. m.	15	-----	410,000	do	Tornado did not come to earth; observed for about 50 seconds, 12 miles northeast of El Dorado.
Harvey County, Kans.	18	6:45 p. m.	-----	0	0	Tornado	Principal damage to wheat by hail at Duke. Tornado funnel seen near Altus moving northeastward. Storm path about 30 miles long. Victory and Friendship communities affected.
Butler County, Kans.	18	7:22 p. m.	-----	0	0	do	Nearly 8 inches of rain in a few hours caused severe damage to buildings, roads, etc. 75 percent of damage from rain.
Altus (northwest of), Okla.	18	7:30-8:15 p. m.	115	0	200,000	Tornado and hail	Baby twister originated just west of Marysville and jumped to northeastern section of town, demolishing cow shed.
Norman and vicinity, Okla.	18-19	7:30 p. m.-2:30 a. m.	-----	-----	500,000	Wind and rain	Funnel observed and reported; warning caused much confusion at Hobart. Struck Hobart airport, destroying hangar, then moved northward. Tornado missed Hobart.
Marshall County, Kans.	18	8:30 p. m.	100	0	500	Tornado	Several funnels observed near Wellington and Kiowa, none of which reached ground.
Kiowa County, Okla.	18	8:38 p. m.	40	0	11,450	do	Heavy hail, largest size of silver dollar. Considerable damage to crops, but hard to estimate on account of previous hailstorms recently.
Harper and Sumner Counties, Kans.	18	Evening	-----	0	0	do	Storm occurred a few miles south of Wooster. Hailstones found in fence rows to a depth of 12 inches. No crop damage reported as season early.
Panhandle, Carson County, Tex.	18	-----	-----	-----	-----	Hail	1 injured. Path northeastward near Hollow, length not known.
Wayne County, Ohio	18	-----	-----	-----	-----	do	Several buildings unroofed in Broken Arrow, causing \$25,000 damage. Several barns in surrounding area damaged or destroyed.
Craig County (northern part), Okla.	19	12:20 a. m.	440	0	1,000	Tornado	Funnel cloud observed in Broken Arrow, as it moved south-eastward in a quarter-mile path.
Tulsa County, Okla.	19	1-4 a. m.	100	0	50,000	do	Some trees blown over, limbs torn off others, a few buildings unroofed, signs torn down, wires damaged, and wall of building pushed in. 1 person slightly injured. 600 phones out and about 400 window panes broken; greenhouses the heaviest damage.
Joplin (western edge), Mo.	19	1 a. m.	-----	-----	4,000	Wind and thunderstorm.	Buildings unroofed and trees uprooted. Water plant damaged \$1,000.
Mountainburg, Ark.	19	Morning	-----	-----	-----	Wind	Tornado damaged beets and small grain. Hail caused further damage to beets and hay. Crop damage \$5,000; loss of baby chicks \$50; damage to buildings \$700. Path 4 miles long.
Northport (near), Morrill County, Nebr.	19	12:05-12:30 p. m.	300	0	5,750	Tornado and hail	Northerly winds, estimated at 50 to 60 m. p. h. for 12 minutes, damaged shrubbery and gardens. Falling and broken trees brought down power lines which interrupted service for several hours.
Waddington, N. Y.	19	1:25 p. m.	-----	-----	-----	Wind	Damage to wheat \$2,250,000, other crops \$65,000; to buildings from wind \$30,000. Tornado occurred in southwestern Chase County.
Chase County, Nebr.	19 and 23	5:30-7:25 p. m. 5:50 a. m.-7:40 p. m.	12 1/2	0	2,345,000	Tornado and hail	Storm first reported at Rombauer and Fisk in northeastern Butler County, moved east-southeastward to Mississippi River about 5 miles south of New Madrid. Parma area hardest hit. According to Red Cross figures for entire area: A baby killed, 60 injuries; 49 homes destroyed, 287 damaged; 130 barns destroyed, 115 damaged. Other types of buildings destroyed numbered about 170, with about 180 damaged, besides damage to 12 business places, 2 churches, 1 school, and numerous power and phone lines. Crop damage and losses to livestock estimated at about \$100,000 of the total loss; probably about \$75,000 of that due to hail.
Butler, Stoddard, Dunklin, and New Madrid Counties, Mo.	19	3:45-4:20 p. m.	1 1/2-2	1	880,000	Tornado, wind, and hail.	About 600 window panes broken by hail, mostly in greenhouses, but plant damage slight.
Joplin, Mo.	19	5 p. m.	-----	-----	-----	Thunderstorm and hail.	1 injury. Several funnel clouds observed in various parts of county, but no damage other than near Dewey where 3 farm sections affected.
Washington County, Okla.	19	5:15 p. m.	50-100	0	4,500	Tornado	Losses to wheat and alfalfa, \$800,000; to buildings, \$5,000. Path 15 miles long.
Hitchcock County, Nebr.	19	7-7:20 p. m.	12-6	-----	805,000	Hail	In Youngstown a few buildings, mostly garages, damaged or unroofed; a number of windows broken; a good many trees broken or uprooted; damage in a cemetery estimated at \$5,000.
Mahoning County, Ohio	19	Evening	-----	-----	-----	Wind	Damage to wheat and potatoes.
Hereford, Deaf Smith County, Tex.	19	-----	-----	-----	200,000	Hail	Light damage to alfalfa.
Sheridan Field (8 miles east of), Wyo.	20	Afternoon	-----	-----	-----	do	Forming at Beecher Island, about 8 miles south of Wray, tornado struck first at various points eastward, and moving over Colorado-Nebraska line, destroyed many farm buildings in its path.
Wray, Colo.	20	12:45-2:30 p. m.	440	0	200,000	Tornado, hail, and rain.	Some hail accompanied storm, but practically all damage from tornado.
Haigler (near), Dundys County, Nebr.	20	2-2:25 p. m.	-----	0	13,100	Tornado	Moved northeastward, skipped a considerable stretch but swooped down on 2 farms, demolishing buildings; small amount of livestock lost. 1 personal injury.
Mound City, Ill.	20	2:30 p. m.	-----	-----	100,000	Wind and hail	Storm covered 40-square-mile area, most damage caused by wind. 1 new building demolished and many other structures damaged. Considerable strawberries and tree fruits destroyed. A few persons slightly injured.
Scott and Lane Counties, Kans.	20	4-6 p. m.	200	0	200,000	Tornado and hail	Storm began 12 miles southwest of Scott City and ended 6 miles northeast of Healy, in Lane County. Tornado cloud observed. Hail in scattered portions of counties. Farm buildings and crops damaged over 25-mile path.
Sheridan County, Kans.	20	4:30 p. m.	13	-----	70,000	Hail	Storm moved northeastward about 35 miles across central portion of county. Hailstones mostly 1/2 inch or less in diameter.
Rawlins, Decatur, Cheyenne, and Thomas Counties, Kans.	20	Late afternoon	-----	0	-----	Tornadoes	A number of small tornadoes at numerous points. Damage generally confined to farm buildings, fences, telephone, and power lines.
Balko and Beaver, Okla.	20	5:10-5:20 p. m.	100	1	1,500	do	6 distinct funnel clouds observed, but only 3 touched ground. Length of paths short, longest about 4 miles. Farmer killed near Balko.

See footnote at end of table.

## SEVERE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Barren Creek Community and Goin Section, Tenn.	20	6 p. m.-----	1,500	0	37,500	Tornadoic, wind and hail.	Storm traveled eastward for 5 miles. 3 persons injured. Hall, up to size of hens' eggs, and cloud burst destroyed new crops and washed away much topsoil in 2 communities. 5 houses and 2 barns blown away. Crop damage \$25,000, included in total.
Ellis and Woodward Counties, Okla.	20	6-7 p. m.-----	100	0	400,000	Tornado, wind, and hail.	Damage estimated at \$340,000 for tornado, \$50,000 for hail, and \$10,000 for high wind. 5 or 6 funnels observed in Ellis County. Tornado cloud touched ground at intervals. Funnel observed approaching airport near Gage from west, apparently from Shattuck but not seen touching ground; so, may have been high wind damage to aircraft and hangar at Gage. Accompanied by hail, \$50,000 damage to crops in Ellis County; hailstones unusually large and jagged, some more than 3 inches in diameter at Woodward Field station. \$250,000 damage to airport property west of Woodward. Considerable farm property destroyed. 3 injuries at Woodward air base. Path about 35 miles long; storm appeared to move northeastward then eastward then northeastward.
Ellis County, Kans.	20	6:30 p. m.-----	-----	-----	50,000	Hail-----	Hail of varying intensity fell in numerous places; most damaging in western portion. Wheat principal loss.
Gray, Ford, Hodgeman, and Pawnee Counties, Kans.	20	6:30-7 p. m.-----	-----	0	510,000	Tornadoes, wind, and hail.	Numerous funnel-shaped clouds followed irregular courses along general storm path from Copeland, in Gray County, northeastward into western Pawnee County. Damage resulted as tornadoes dipped to earth occasionally near Copeland, Howell, Hanston, and Rozel. Several persons injured at Rozel. Much property damage and some wheat loss from hail. 4 funnels seen near Dodge City.
Russell County, Kans.	20	7-8 p. m.-----	11	-----	90,000	Wind-----	Path of destruction from about 3 miles northwest of Gorham to 6 miles southeast. No well developed funnel observed. Debris indicated twisting winds. A school house partially destroyed; roofs, porches, and small buildings damaged. 24 freight cars blown from tracks.
Barton County, Kans.	20	7-8 p. m.-----	12	-----	100,000	Hail and wind-----	Some roofs damaged, much glass broken, considerable wheat loss, and many power and telephone lines out. Several storm paths across county.
Comanche County, Kans.	20	7:30 p. m.-----	100	0	200,000	Tornado-----	Tornado cloud formed 7 miles southwest of Coldwater, passed about 3/4 mile north of Coldwater to Wilmore, 12 miles northwest, where business and residential buildings damaged. Damage to crops, buildings, power and telephone lines, and trees all along path; especially severe at Wilmore.
Catesby (near), Ellis County, Okla.	20	7:30 p. m.-----	67	1	8,000	-----do-----	1 injury. Farmstead destroyed.
Lincoln County, Kans.	20	7:45 p. m.-----	-----	0	8,000	-----do-----	Tornado struck a mile southeast of Lincoln, moving northeastward about 4 miles. Windmills and small buildings demolished; trees broken and uprooted. Distinct funnel-shaped cloud observed.
Saline and Dickinson Counties, Kans.	20	8-8:30 p. m.-----	440	1	50,000	Tornado and hail---	Storm moved almost north from 7 miles southwest of Gypsum to a few miles northeast of Solomon. Railroad bridge near Gypsum partly torn up. Numerous farm buildings, and business and residential property in Solomon damaged. Crops in several scattered localities destroyed to great extent by hail. 5 persons injured. Some evidence of second tornado in vicinity.
Rice County, Kans.	20	8:40 p. m.-----	880	0	-----	Tornado-----	Small tornado hit Chase, moving eastward along main street. A few houses and business buildings damaged. 1 person injured. Communication lines cut. Path extended about 1 mile.
Custer County, Okla.	20	8-9 p. m.-----	1,760	0	305,000	Tornado and hail---	Damage estimated at \$105,000 for tornado; \$200,000 (60-85 percent wheat crop) damage by hail. Path east-northeastward 27 miles. 1 injured at Butler, and 2 injured at Thomas. 5 farm houses destroyed, many damaged; much barn damage in affected areas. 25 places damaged at Thomas. Cotton gin destroyed at Butler. At farm 4 miles west of Thomas, 13 cattle in feed lot lifted out of pen and came down unhurt 1/4 mile away; 1 cow left in pen unhurt. Farmer 5 miles west of Thomas warned community.
Woodward County, Okla.	20	8:30 p. m.-----	-----	0	14,000	Tornado-----	Several farmsteads damaged west of Vici. 4 homes unroofed at Moreland. Path from west of Vici through Booster station, 5 miles northeast of Moreland.
Hammon and vicinity, Custer County, Okla.	20	8:30 p. m.-----	1,760	0	17,000	Tornado and hail---	Crop damage estimated at \$10,000, property damage at \$7,000; tornado damage estimated at \$14,500, hail damage at \$2,500. Path northeastward, 12 miles long.
Woods County, Okla.	20	9 p. m.-----	30-100	0	56,000	-----do-----	Northeast path about 12 miles long from 12 miles south of Waynoka to 12 miles east and 5 miles north. 3 sets of farm buildings completely blown away. Moderate hail preceded tornado; considerable damage by hail, but amount not estimated.
Sumner County, Kans.	20	9 p. m.-----	-----	0	-----	Tornado-----	Tornado hit 9 miles southwest of Wellington, damaging several farm homes and barns.
Alfalfa and Grant Counties, Okla.	20	9-9:30 p. m.-----	12	1	2,500,000	Tornadoic and hail---	1 death at Yewed. 2 injured at Nash; 25 injured in Alfalfa County. Appeared as if in high wind and hail area there may have been 1 or more tornadoes. Possibly a tornado at Nash, Grant County. Crop damage estimated at \$1,000,000; buildings and other property damage at \$1,500,000. Path from 1 mile north of Cherokee to Nash.
Rogers, Ark.	20	Evening-----	-----	-----	-----	Wind-----	Damage to power and telephone lines.
Dickinson and Geary Counties, Kans.	20	9-9:30 p. m.-----	-----	0	-----	Tornado-----	Path of tornado extended from Hope, in south-central Dickinson County, to a few miles north of Junction City, just missing that city on the northwest. Power and communication lines torn down and numerous barns, sheds, and some houses destroyed.
Lyon and Wabaunsee Counties, Kans.	20	9:30-11:30 p. m.---	300	0	75,000	-----do-----	Tornado began 5 miles northwest of Emporia and moved north-northeastward, ending 6 miles north and 5 miles east of Harveyville. Farm homes, barns, sheds, and telephone and power lines destroyed. 1 person injured. Entire path about 30 miles long. Peculiar roar of tornado heard by many, but no funnel-shaped cloud seen due to darkness.
Blaine and Kingfisher Counties, Okla.	20	10 p. m.-----	440-12	1	68,500	Tornado and wind---	1 death at farm 16 miles southwest of Watonga; 7 injured. 30 farms suffered extensive damage in 55-mile path northeastward across Blaine County from west of Greenfield into Kingfisher County, with zig-zag path to Omega and Loyall; high wind at Dover. Crop damage to wheat estimated at \$45,000. Damage in Blaine County, \$27,000; damage in Kingfisher County, \$41,500.
Blaine County, Okla.	20	Late evening-----	-----	0	10,000	Tornado-----	5 farms badly damaged northwest of Watonga.
Blaine County, Okla.	20	-----do-----	-----	-----	20,000	Wind-----	High winds over much of county in addition to tornado damage areas. School at Greenfield unroofed; several other buildings damaged. Damage to ripening wheat.
Payne County, Okla.	20	Night-----	-----	0	15,000	Tornado-----	Several farm homes severely damaged. Path northeastward for 18 miles from 8 1/4 miles south of Stillwater to 4 miles east.
Pawnee County, Okla.	20	Night-----	-----	-----	275,000	Hail-----	In scattered sections of entire county.
Woodward (2 1/2 miles east of), Okla.	20	-----	50-75	0	3,000	Tornado-----	Farm house destroyed.

See footnote at end of table.

## SE RE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Allen County, Kans.....	20-21	Midnight.....				Wind.....	Store windows damaged; tree limbs and power lines broken. Damage mainly in Iola and La Harpe.
Jay County, Ind.....	20	.....	440	0	10,000	Tornado.....	East of Salamonina. Path 3 miles long.
Bristow, Creek County, Okla.	21	12:10 a. m.....	300	0	15,000	Tornado and hail.....	Moved east-northeastward about 1½ miles.
Pawnee County, Okla.....	21	Shortly after midnight.		0	60,000	Tornado.....	1 minor injury. Path northeastward from southwest of Cleveland to Cleveland, apparently divided at one point; part going south-east. Major damage to oil refinery and many homes.
Oologah, Rogers County, Okla.	21	12:30 a. m.....	220	0	4,000	.....do.....	2 injured. About 7 miles to left of a tornado that occurred about 30 minutes later in same county.
Rogers and Craig Counties, Okla.	21	1:07-1:10 a. m.....	100-200	0	30,000	.....do.....	5 tornadoes all moving northeastward as follows: 1. From 5 miles north of Claremore to Chelsea through Estella; northeastward for 18 miles. 2. White Oak, northeastward; path 3 miles. 3. South edge of Vinita; several residences damaged and part of roof blown off stockyards pavilion. 4. Definite track, parallel to No. 3, and 1 mile south. 5. At Big Cabin, damage to residences and roof on school gymnasium.
Mountain Grove (north of), Mo.	21	4:30 a. m.....	880	1		Tornado and electrical.	Damage mostly to trees. 1 home, 2 barns, a garage, and a chicken house damaged. Boy killed by lightning at Cabool; probably not caused by this particular storm, but a part of same general storm condition.
Bentonville, Ark.....	21	Morning.....				Wind.....	Considerable damage to automobiles, buildings, trees, and power lines.
Witt Springs, Estill County, Ky.	21	12:30-12:45 p. m.....	150	0	10,014	Tornado.....	Length of path about 6 miles. 4 persons injured by falling building and other debris. 2 dwellings, 3 barns, and several out buildings damaged. Wires down in path of storm. Some baby chicks lost.
Audrain County (southern portion), Mo.	21	2 p. m.....	880	0	1,000	Wind.....	Storm hit farming area 7 miles south and southwest of Mexico. Homes and buildings damaged on several farms. Some trees blown down and limbs of others broken. Small damage to wires.
Southern Pike and extreme northern Lincoln Counties, Mo.	21	3:30 p. m.....	384	1	200,000	Tornado.....	A couple of small buildings on farm near Whiteside damaged. On many farms near communities of New Hartford, Ashley, Cyrene and Clarksville, Red Cross reported: 1 person killed, 20 injured; 14 homes destroyed, 9 damaged; 31 other buildings destroyed, 26 damaged. Only 5 percent of total damage was to crops and livestock. Storm dissipated into Mississippi River a short distance south of Clarksville.
Man and vicinity, W. Va....	21	3:30 p. m.....				Wind, rain and hail.	4 persons injured and much property damaged. Roofs blown off several houses, grandstand, and store. Wooden cross on church snapped off and tops of trees twisted off; display signs blown down and plate glass windows blown in.
Pittsburg, Van Buren County, Iowa.	21	4 p. m.....	440	0	30,000	Tornado.....	Path about ½ mile long in neighborhood of Pittsburg, a small community 3 miles northwest of Keosauqua. 8 houses damaged, plus several barns and smaller buildings. No personal injuries reported.
Reedy and vicinity, W. Va..	21	4:05-4:20 p. m.....	440		7,000	Wind, hail, and rain.	Roofs blown off several buildings; windows broken in many homes; scores of trees blown down; 2 automobiles damaged by flying debris; power and telephone services temporarily disrupted. 1 home blown off its foundation; 3 horses killed by lightning; considerable damage to garden and farm crops.
Northeastern Franklin and northern St. Louis Counties, Mo.	21	4:30-4:50 p. m.....	134	0	500,000	Tornado and hail...	Storm probably originated near Washington where it destroyed 4 barns and 21 other buildings and damaged 3 homes, 1 barn, and 11 other buildings. It then lifted, or dissipated and another one formed along the same path about 25 miles northeast, near Creve Coeur, where next reported, but no damage there. It then struck near southwestern edge of Lambert Field Airport, about 10 miles further to northeast; damage done to trees, buildings, and airplanes. However, it lifted and passed over the field without any further damage and did not dip to earth again until about 7½ miles northeast of airport, where most of damage occurred in Missouri, then continued to Wood River, Ill. In St. Louis County, Red Cross reported 2 persons injured, 2 homes destroyed and 11 damaged, 5 buildings of other types destroyed and 11 damaged. Damage to crops estimated at \$75,000, mostly due to hail. Hail also damaged at least 75 automobiles to amount of about \$9,400.
Mt. Sterling, Ill.....	21	4:30 p. m.....	200	0	40,000	Tornado.....	Storm first struck 4 miles southwest of Mt. Sterling and moved northeastward 12 miles through rural sections. 8 farm properties hit, with several barns destroyed or damaged, and several homes badly damaged. Crop and livestock loss negligible.
Wood River, Ill.....	21	4:55 p. m.....	500	5	1,300,000	.....do.....	Storm originated in Missouri northwest of St. Louis and struck Wood River after crossing Mississippi River. About 200 houses and 150 other buildings destroyed and several hundred structures suffered some damage. An oil refinery badly damaged. 2 trailer camps wiped out, about 25 trailers completely destroyed. 60 persons injured. In nearby rural areas several farms hit and 500 acres of timber destroyed. 50 head of livestock lost, but crop damage negligible.
Palestine, Ill.....	21	5 p. m.....	50	4	70,000	.....do.....	Struck west end of Palestine, demolishing restaurant, water pumping station, and 3 houses, and damaging about 20 other buildings. 7 persons injured. Most of dead and injured were in restaurant. Path northeastward into Indiana.
Chapmanville and vicinity, W. Va.	21	5 p. m.....				Wind, hail, and rain.	Hailstones, disc shaped, up to 1¼ inches in diameter and ¼ inch thick; hail covered ground until white.
Sullivan and Clay Counties, Ind.	21	5 p. m.....	150	14	1,000,000	Tornado.....	Moved into State from Palestine, Ill., through Shelburn, Clay City, Bowling Green, Poland and Lewis. Path northeastward. Complete destruction of houses in path of storm. \$10,000 crop damage included in total. 251 persons injured.
Vigo County, Ind.....	21	5:15 p. m.....	200	3	500,000	.....do.....	Began in extreme east edge of city of Terre Haute, about 2¼ miles east-southeast of Paul Cox Field, moved north-northeastward to just southwest of village of Burnett. 5 persons injured.
West Point, Lee County, Iowa.	21	5:30 p. m.....				Wind.....	Severe local windstorm or possibly tornado struck 2 miles north of West Point, causing considerable damage on 5 farmsteads. No personal injuries.
Northern Bollinger and northwestern Cape Girardeau Counties, Mo.	21	5:45 p. m.-6:30 p. m.	220	1		Tornado.....	According to Red Cross reports, storm killed a man about 10 miles north of Marble Hill; injured 6 people; destroyed 7 homes, 7 barns, and 14 other types of buildings; and damaged 6 homes and 1 building. Little tillable land where tornado struck. No livestock losses.

See footnote at end of table.

## SEVERE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Cape Girardeau County (southern part), Mo.	21	6:55-7 p. m.	200	23	4,000,000	Tornado	Most destructive in Missouri since the St. Louis tornado of September 27, 1927. Red Cross reported 130 injured, many seriously; 202 homes destroyed, and 231 others damaged, 19 places of business destroyed and 14 damaged, besides serious damage to church. Practically all damage occurred on west and especially north sides of Cape Girardeau along path about 10 miles long, traveling from about 3 miles southwest of city diagonally to northeast. Path clearly visible through forested area as seen across Mississippi River into Illinois, but no damage reported there. Wind 50 m. p. h. caused minor damage to signs, roofs, and trees.
Texarkana, Ark.	21, 23, and 24	7 p. m.				Hail and wind	
Marked Tree, Ark.	21	9:30 p. m.	400	0	3,000	Tornado and hail	Small tornado unroofed cotton house gin. Several houses damaged and trees uprooted. Trees blown across highway; slight property damage.
Bradford, Ark.	21	Evening				Wind and hail	
Mt. View, Ark.	21					Electrical and wind	
Red Bolling Springs, Macon County, Tenn.	22	2 a. m.		0	300,000	Tornado	Only slight crop damage. Many livestock killed or injured. Houses unroofed and wrecked, barns flattened, and many trees uprooted.
Somerset, Pulaski County, Ky.	22	2-2:05 a. m.	440	1	750,000	do	High winds lasted for about an hour. Several dwellings badly damaged; a large tobacco warehouse and wholesale grocery store completely destroyed. 2 large garages damaged. Little damage to livestock or crops.
Irvine, Estill County, Ky.	22	3 a. m.				Wind	Grandstand unroofed at ball park. Trees blown down. Total damages will run into many thousands of dollars.
Ripley and vicinity, W. Va.	22	2-2:20 p. m.	12	0		Near tornadic, hail, and rain.	Hailstones $\frac{3}{4}$ inch to $1\frac{1}{2}$ inches in diameter. Neon signs, window panes, roofs, garden and farm crops damaged.
Bluefield and vicinity, W. Va.	22	2:05-2:16 p. m.				Hail	Hailstones from size of marbles to $1\frac{1}{2}$ inches in diameter. Considerable damage to roofs, windows, signs, automobiles, gardens, and trees; telephone communications disrupted.
Glenville and vicinity, W. Va.	22	2:25 p. m.	12		8,000	do	Considerable damage to crops, roofs, and windows.
Charleston, W. Va.	22	2:45-3:10 p. m.			100,000	Wind and hail	37 business buildings damaged, with some roofs blown off and numerous plate glass windows smashed. Power and telephone services disrupted.
Buckhannon and vicinity, W. Va.	22	3-4 p. m.				Hail	Hail, mostly small, some as large as walnuts. Some damage to roofs and gardens.
Berlin and vicinity, W. Va.	22	3:30-3:50 p. m.				do	Hailstones reported up to 6 inches in circumference.
Beaver and Butler Counties, Pa.	22	3:30-4 p. m.	440		58,300	Wind, hail, and rain.	Path southeastward for 20 miles from New Brighton to Harmony Junction, Jackson Township. Slight damage to crops. Most damage to property from wind in area from Zellenopie to Harmony Junction. Damage to electrical and telephone installations estimated at \$8,000, and \$300 loss of cow, included in total.
Bayard, W. Va.	22	4 p. m.			10,000	Wind and hail	Hail, size of walnuts, at one time 3 inches deep. 200 house roofs severely damaged; trees badly damaged; birds killed and nests destroyed. Said to be worst hailstorm in history of Bayard.
Hastings (near), Adams County, Nebr.	22	4-4:30 p. m.	12			Hail	About 15 percent damage to alfalfa and wheat. Path 15 miles long.
Highland County, Va.	22	4-7 p. m.				do	3 hailstorms damaged crops, roofs, and broke a few windows.
Mount Clare and vicinity, W. Va.	22	Afternoon				do	Some damage to gardens.
Rohrbough and vicinity, W. Va.	22	do				do	Considerable damage to gardens.
Hornor and vicinity, W. Va.	22	do				do	Some damage to gardens.
Rotan, Fisher County, Tex.	22	5 p. m.	16			Wind and hail	Most of damage to trees, shrubbery, and roofs. About 50 percent loss to fruit trees.
Beaver County, Okla.	22	5:40 p. m.			76,000	Hail	Area 20 by 30 miles from Forgan to west, and east around Beaver. Heavy damage to crops south of Beaver. About \$1,000 damage to windows and roofs.
Follett, Lipscomb County, Tex.	22	6 p. m.	13		1,200,000	Wind and hail	Crops in center of path total loss; no material loss to buildings. Hail damage estimated at \$1,080,000. Storm started just south of Beaver, Okla., and moved southeastward. Wind damage, \$120,000.
Lynchburg, Va.	22	6-6:30 p. m.				Hail and electrical	Hail up to size of billiard balls cut telephone and power lines. Lightning fired 3 houses.
Abilene, Tex.	22	7 p. m.	440		60,000	Wind and hail	Hail damage estimated at \$30,000 to crops and \$5,000 to buildings. Wind damage, \$30,000, mostly to buildings. Hail as large as baseballs, but very scattered, reported at Clyde. Holes in 1 roof looked like sledge hammer holes. 3 persons injured.
Cauthornville, Va.	22	8-8:30 p. m.	440	0		Tornado	Barn demolished, several buildings damaged, trees twisted off, crops destroyed over area $\frac{3}{4}$ by $1\frac{1}{2}$ miles.
Baltimore, Md.	22	P. m.				Cloudburst and electrical.	Trees blown down. Buses and cars stalled due to heavy rains. Power failure caused by lightning and by trees blown across wires.
Allegany, Harford, and Montgomery Counties, Md.	22	P. m.				Hail and rain	Heavy hail in Allegany and Montgomery Counties and some hail in Harford County. Some crop damage over State.
Aberdeen, W. Va.	22	Evening				Hail	Hailstones up to 2 inches in diameter. Extreme damage to crops.
Rhode Island, southern portion.	22	Night				Electrical and rain	6 persons injured by lightning; 2 houses struck and damaged. Streets in Providence flooded to depth of 6 to 8 inches. Power interrupted briefly in Westerly, Bristol, and Cranston.
Rogersville, Hawkins County, Tenn.	22					Hail and wind	Considerable damage to crops.
Maynardville, Union County, Tenn.	22					Hail, wind, and rain (tornadic character).	Considerable erosion. Trees uprooted, several roofs destroyed or damaged.
Southern Garden County and northern Deuel County, Nebr.	22		13-6		512,725	Hail and wind	Crops totally destroyed in places, damage estimated at \$512,000; to livestock \$225; to buildings \$500. Path 30 miles long.
Fillmore, Lee County, Ky.	22					Wind and rain	Church lifted from foundation, store unroofed, farm buildings and crops damaged.
Pebworth, Owsley County, Ky.	22					do	House torn from foundation; fences, trees, and other property scattered over countryside. Crops damaged.
Richmond, Madison County, Ky.	22					do	Radio tower at State Police station damaged.
Kenton County, Ky.	22					Wind	Huge tree fell on 4 parked automobiles. No personal injuries.
Mahoning, Stark, and Columbiana Counties, Ohio.	22					Rain and wind	Thousands of dollars damage caused by flooding of streets and basements and collapse of front wall of 3-story apartment house; many trees uprooted.
Eastern Audrain and southwestern Scotland Counties, Mo.	23	2:15 p. m.				Electrical and hail	Lightning struck several local transformers in Martinsburg, disrupting electrical service. Hail damaged gardens and crops north of Martinsburg near Laddonia, and gardens and some window lights near Bible Grove.

See footnotes at end of table.

## SEVERE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Union Springs, Ala.	23	3:45-4:20 p. m.	13			Hail	Fall not heavy, but falling stones ranged in size up to hens' eggs, and continued for considerable length of time. Some crop damage; a few windows broken.
Lincoln and Chandler Counties, Okla.	23	4 p. m.	1,320		50,000	do	Path 10 miles long from 4 miles west of Chandler to 6 miles east. Most of damage to crops; some window and roof damage.
Perkins County (western part), Nebr.	23	5 p. m.			811,000	do	Crops completely destroyed in places; damage estimated at \$800,000, crops in storage \$1,000. Roofs badly damaged; many windows broken; property damage estimated at \$10,000.
Beaver County, Okla.	23	6:15 p. m.			75,000	do	Duration of storm about 40 minutes. Heavy hail east of Beaver and Knowles. Area 20 by 30 miles. Some land covered with 3 inches of hail.
Greeley, Wichita, Kearney, Finney, Haskell, Gray, and Ford Counties, Kans.	23	Afternoon		0	2,500,000	Hail and tornadoes	A combination of approximately 25 separate hailstorms spread from just east of Tribune southeastward to southern Ford County. Finney County suffered greatest damage. Hail varied greatly in intensity and ranged in size from peas to golf balls. Much wheat ruined; considerable glass broken, and roofs and cars damaged. 2 small funnel-shaped clouds observed south of Garden City but caused no damage.
Kingfisher County, Okla.	23	7 p. m.	200-250	0	105,200	Tornado and hail	Path 8 miles long from northwest of Hennessey, through Hennessey southeastward. \$72,000 hail and wind damage to crops. \$24,000 tornado damage to buildings, \$9,200 damage to livestock and crops in storage.
Ponca City (western portion), Okla.	23	8 p. m.			25,000	Hail and wind	Damage to roofs and windows of buildings, and car top
Logan County, Okla.	23	8 p. m.			50,000	do	Crop damage, \$40,000. Many windows broken and several buildings damaged in Crescent.
Barry County (southern part), Mo.	23	8 p. m.	15			Electrical	Barn struck by lightning and burned. Man also struck; recovered later. Storm centered in 5-mile area about 7 miles northeast of Seligman.
Montgomery, Ala.	23	9:25 p. m.			2,000	Thundersquall	Roof and porch damage to veterans' housing project.
Hughes County, Okla.	23	10 p. m.			20,000	Hail and wind	Most of damage by hail in area north of Holdenville, estimated \$19,000. Some damage to trees and buildings in Holdenville.
Garfield County, Okla.	23	Evening			10,000	Hail	Crop damage severe west of Waukomis.
Wilburton, Okla.	23	do		0	500	Tornado	Storm moved northeastward, causing some damage to buildings along west end of Main Street and in northeastern section.
Comanche County, Kans.	23	do	12		35,000	Hail	Storm occurred in southwestern portion of county, causing 100 per cent loss to some wheat fields in path 3 miles long.
Pawnee County, Kans.	23	Night			6,000	do	Several storms in northern and western parts of county. Most damage in area near Rozel and Garfield.
Phillips, Wyo.	23					do	Light damage to alfalfa and winter wheat.
Southampton County, Va.	24	2:30-3:15 p. m.			26,000	Hail and rain	Heavy damage to crops by hail and erosion in Capron, Joyner, Sebrell and Triangle areas. Some windows broken and roofs damaged.
Elkins, W. Va.	24	3:30 p. m.				Electrical	Lightning struck building at airport. Principal damage to CAA communication equipment, lesser damage to Weather Bureau equipment.
Ford County, Kans.	24	4 p. m.	16		500,000	Hail	Damage extended over strip 20 miles long from northwest of Dodge City to Bloom. Many stones 2 inches in diameter.
Richmond, Va.	24	7 p. m.				Electrical	Large barn with hay burned.
Refugio, Refugio County, Tex.	24	7 p. m.	14		37,000	Wind and hail	Hail damage estimated at \$12,000. Home gardens beaten down; no farms within area. Several garages blown apart and roofs from several small houses blown away. Some small homes blown off foundations. Many trees broken and uprooted. Window panes broken. 1 person injured.
Anne Arundel County, Md.	24	p. m.				Wind, rain and thunderstorm.	Wind capsized small boat at pier in Round Bay on Severn River. Tree branches blown across roads and telephone wires.
Pittsfield, Mass.	24	Night				Electrical	1 house struck and destroyed by fire. Damage to power and transmission lines.
Knox County (northern part), Mo.	25	3-5 p. m.	18		3,000	Hail	Storm struck at Greensburg damaging gardens, truck patches, and breaking a few window lights. Hailstones ranged from 1/2 to 1 1/2 inches in diameter. \$3,000 crop damage included in total.
Madison (near), Morgan County, Ga.	25	4 p. m.				do	Area 6 x 8 miles southwest of Madison affected, within which very heavy damages over area 3 x 3 miles, where reports indicate crops completely destroyed. Cotton and corn chief crops affected, with losses likely to exceed \$10,000. Little or no damage to property.
Linn County (southwestern part), Mo.	25	4:50-5:20 p. m.	11			do	Hailstones from size of hulled walnuts to hens' eggs did much damage to gardens, crops, and some roofs at Laclede, Linneus, Pershing Park area, and in spotted areas nearby, and also near Brookfield.
Cooper County (southwestern part), Mo.	25	8-8:30 p. m.	440			Wind and hail	Some building roofs damaged and some windows broken by the storm which struck Clifton City. Largest hailstones said to be the size of ping-pong balls.
Morgan County (western part), Mo.	25	8:30-9 p. m.	11 1/2		8,000	Hail	Territory covered by hailstorm included Stover and to southwest of town; appeared to be spotty. Stones varied from about 3/4 inch to some reported as large as hens' eggs. Crop damage estimated at \$5,000 included in total. Most other damage to roofs.
Cowley County, Kans.	25	Night			250,000	Hail and wind	Principal damage to wheat in southern portion of county, where approximately 10,000 acres destroyed.
Moore, Lee, Wayne, Columbus, Johnston, Bladen, Onslow, Duplin, and Robeson, N. C.	26	Noon				do	Same thunderstorm that produced tornado. Heavy crop damage in some areas.
Sampson, Johnston and Wayne Counties, N. C.	26	12:30 p. m.	200-300	0	100,000	Tornado	First struck 8 miles east of Dunn. Path due east to 2 1/2 miles west of Newton Grove, passed 7/10 mile north of Newton Grove to 2 3/4 miles east of Newton Grove. Path 12 miles long. Storm dipped to earth at intervals. Funnel cloud believed to have split into 2 funnels north of Newton Grove, then rejoined soon after. A heavy hailstorm, with hail as large as golf balls, occurred late in morning at Dunn. After hailstorm a large rolling seed cloud with thunderhead cloud observed. This may be taken as evidence of severe turbulence present in area preceding formation of tornado. A few minor injuries.
Lake City, Ark.	26	3 p. m.				Hail	Some damage to crops and gardens.
Greensville County, Va.	26	6-6:25 p. m.				do	Hail killed some poultry; corn and cotton had to be replanted in small area near Emporia.
Haskell and Seward Counties, Kans.	26	6 p. m.	18		125,000	Hail and wind	Damage strip extended from 5 miles south of Sublette to 5 miles south of Liberal in north-and-south line of 25 miles. Most damage in Seward County. Hail generally size of marbles.
Grant County, Kans.	26	Afternoon	12-5			Hail	Path of destruction extended from north-central part of county to southeast corner, almost 25 miles.
Northeastern Webster and northwestern Wright Counties, Mo.	26	10-11 p. m.	11 1/2		1,150	do	Area covered some 35 to 40 farm homes; many buildings suffered roof damage with some damage to automobiles. Stones varied from 1 1/2 inches to oblong shape 2 inches long and 1 inch wide.

See footnote at end of table.

## SEVERE STORMS FOR MAY 1949—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Bourbon County, Kans.	26	Evening	12		500	Hail	Storm moved eastward along a path of 5 miles in western part of county.
Dundy County (northeastern part), Nebr.	26		16		200,000	do	Losses to wheat crop. Path 20 miles long.
Green Forest, Ark.	27	11 a. m.				do	Considerable damage to crops and fruit over small area.
Madison, Ark.	27	Evening				do	Damaged crops and gardens.
Big Flat, Ark.	27	do				do	Considerable damage to gardens and crops.
Pryor (4 miles south), Okla.	28	Noon		1		Electrical	One vivid streak of lightning struck and killed boy.
Blaine County, Okla.	28	1 p. m.			75,000	Hail	Area 3 x 5 miles, 6 miles west of Watonga; destroyed nearly ripened wheat.
Geyser, Mont.	28	2:30 p. m.				do	Some damage to alfalfa.
Isle of Wight County, Va.	28	6-6:15 p. m.			500	do	All crops had to be replanted over area $1\frac{1}{2}$ x $\frac{3}{4}$ mile.
Raleigh, Grant County, N. Dak.	28	Evening	15		150,000	do	Most damage in strip about 5 miles wide and 8 miles long, approximately 5 miles south of Raleigh. Hail covered ground several inches thick, broke many windows, some crops complete loss.
Hobson and Windham, Mont.	28-29					do	Light damage to alfalfa. Hail 4 to 8 inches deep on level.
Thief River Falls and vicinity, Minn.	29	A. m. and p. m.			361,200	Rain	Excessively heavy rains, accompanying severe thunderstorms, flooded fields, lowlands, highways, roads, streets and basements. Some homes, buildings, and merchandise stored in basements damaged; much poultry perished; much washing, drowning of growing crops and some fields of small grain reported total loss. Rivers and creeks overflowed and some bridges washed out.
Gooding, Jerome, Lincoln and Blaine Counties, Idaho.	29	12:30-7 p. m.			15,000	Hail and wind	Evidently a series of thunderstorms moving generally northeastward. Principal damage in and near Gooding where all small crops such as beet, beans, corn and alfalfa about 75 percent destroyed, mostly by hailstones $\frac{3}{4}$ to $1\frac{1}{4}$ inches in diameter; green house at least 50 percent destroyed. Hail caused about \$5,000 damage to grain in early head near Shoshone and \$7,000 damage to alfalfa near Hailey where numerous trees blown down and estimated \$500 damage to property occurred. About 40 percent damage to hay occurred on ranch near Jerome.
Deer Lodge, Mont.	29	3 p. m.	8			Hail	Hail lasting about 10 minutes damaged alfalfa and small grains over 30 mile path.
Judith Basin and Fergus Counties, Mont.	29	3 p. m.	3			do	Hail size of peas to walnuts did considerable damage to wheat and barley. Path 7 miles long.
Danvers, Mont.	29	3:30-4 p. m.	2			do	Hail, size of peas, damaged wheat in 15 mile path.
Wolf Creek, Mont.	29	5:30 p. m.	2		9,000	do	100 acres of alfalfa destroyed; considerable damage to gardens and early crops. \$5,000 damage to roofs and electric signs.
Maine, southwestern portion.	29	Evening				Electrical	1 house in New Castle struck and completely destroyed by fire. Several other houses struck with minor damage. Hail at several points in Cumberland and Androscoggin Counties. An estimated depth of 1 inch reported at South Paris; largest stones about the size of "good-sized peas." No hail damage recorded.
Cascade, Mont.	29					Hail	Hail up to 8 inches in diameter did moderate damage to gardens, small grains and hay.
Thomas County, Kans.	29-30	Midnight-1 a. m.	12		500,000	do	Storm began a mile east of Colby, traveling southeastward 15 miles to near county line. Hailstones up to 1 inch in diameter. Wheat main loss.
Forest, Miss.	30	5 p. m.				Wind	Damage small, mostly to trees and corn.
Yazoo City, Miss.	30	Late afternoon				do	Do.
Mobile, Ala.	30	8:30 p. m.	100		6,000	Thundersquall	Damage to boat house and machine shop.
Ancney (near), Mont.	30	P. m.	112		10,000	Hail	Heavy hail $\frac{1}{2}$ inch in diameter caused considerable damage to winter wheat and spring grains over path 5 miles long.
Craig (near), Mont.	30	Evening				Hail and rain	Flooding of about 4 miles of highway interrupted travel on U. S. Highway 91 for over 2 hours.
Cooper County (southwestern part), Mo.	31	1:15-1:35 p. m.	440			Wind	Wind from southwest blew over some large trees and small buildings, and moved others off foundations in Clifton City.
Canal Point, Fla.	31	3-4 p. m.				Wind and muck dust	Clouds of powdered brown muck reduced visibility to near zero for an hour.
Blakely (near), Early County, Ga.	31	3:30 p. m.			2,500	Wind and hail	Storm struck local airport on outskirts of Blakely. 1 airplane demolished; wind damage to hangar roofs. Moderate to heavy hail, $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter, beat down cotton and peanuts but losses not more than about \$500.
Riley County, Kans.	31	6:20 p. m.	134	0	15,000	Tornado	Funnel first sighted about 8 miles west of Manhattan and ended 5 miles north of Manhattan. Tornado dipped only once, unroofing a farm home and destroying other farm buildings and machinery. Power and telephone lines also damaged.
Miami International Airport, Fla.	31	8 p. m.				Thunderstorm, wind and hail	Strong, gusty winds skidded parked airplanes into a pile up. Winds from south-southwest. Area of damage very limited in front (west) of row of hangars in north to south line. No evidence of twisting winds found. Possibly gusts were increased by alignment of hangars. Highest winds at the Weather Bureau Airport office, 1 mile north of damaged area, were south-southwest 38 plus with gusts to 50 m. p. h.
Jackson, Greer, and Kiowa Counties, Okla.	31	9 p. m.	100		2,500,000	Hail and wind	Mostly hail damage to nearly ripened wheat in scattered areas throughout Jackson and Greer Counties, but most damage in Kiowa County where crops destroyed in 100 square mile area from Lone Wolf to Gotebo.
Moorhead and vicinity, Minn.	31	9-10 p. m.			30,700	Thundersqualls	4 greenhouses demolished; warehouse partially unroofed; football field press box wrecked; buildings, houses, garages, sheds, barns and farm outbuildings damaged; awnings, canopies, signs and billboards blown away; many windows broken; automobiles damaged; power and communication lines down; many trees uprooted or branches broken off; slight damage to growing crops.
Ashley, McIntosh County, N. Dak.	31	10 p. m.			50,000	Wind	Small buildings in town and on farms blown over; some larger buildings damaged. Few trees blown over.
West Fargo, N. Dak.	31	10 p. m.		0	10,000	Wind possibly tornado	Stock shed of Armour & Co. completely demolished. Other buildings nearby not damaged; this leads to belief that it was tornado of small proportions.
Johnson County, Kans.	31	11:20 p. m.	440	0	15,000	Tornado and wind	Funnel first dipped to earth in southwest corner of Gardner, damaging houses and trees for about 4 blocks; traveled northeastward. It skipped to Olathe, where some damage done at Naval Air Station and windows and light wire broken in Olathe. High winds in other parts of county resulted in some property damage.

<sup>1</sup> Miles instead of yards.